IN THE CLAIMS:

Please write the claims to read as follows:

Please cancel claims 1-48 without prejudice.

1-48. (cancelled)

Please insert the following new claims, 49 *et seq.*:

49. (new) A portable hydrating fluid purification module, comprising:

an ingress configured to receive hydrating fluid from a fluid source;

an egress configured to direct hydrating fluid directly to a mouthpiece;

a flow path from the ingress to the egress defined by a flow path wall, the flow path arranged to allow the hydrating fluid to flow at a drinkable rate;

one or more solid state ultraviolet (UV) devices to provide UV radiation in a germicidal range, the UV devices embedded within the flow path wall and arranged with the flow path such that hydrating fluid that flows past the UV devices at the drinkable rate is purified by the UV radiation;

means for turning on the UV devices in response to detecting hydrating fluid flow from the fluid source to the mouthpiece; and

means for turning off the UV devices in response to detecting that the hydrating fluid is no longer flowing from the fluid source to the mouthpiece.

50. (new) The module as in claim 49, wherein the UV devices are surrounded by the flow path wall, the flow path wall being UV permeable between the UV devices and the flow path.

51. (new) The module as in claim 49, wherein the UV devices are embedded within a protruding portion of the flow path wall.

52. (new) The module as in claim 51, wherein the protruding portion divides the flow path into at least two partial flow channels for the hydrating fluid to flow past the UV devices.

53. (new) The module as in claim 51, wherein the protruding portion is centered within the flow path.

54. (new) The module as in claim 49, wherein the ingress is configured to mate with a first tubing, and the egress is configured to mate with a second tubing.

55. (new) The module as in claim 54, wherein the first and second tubing are flexible, the ingress and egress configured to be sealably inserted into the first and second tubing, respectively.

56. (new) The module as in claim 49, wherein the purification module is widened where the UV devices are embedded within the flow path wall to maintain the drinkable rate unimpeded through the module.

57. (new) The module as in claim 49, wherein the means for turning the UV devices on and off correspondingly turn the UV devices on and off substantially immediately in response to detecting that the hydrating fluid is flowing or that the hydrating fluid is no longer flowing, respectively.

58. (new) The module as in claim 49, wherein the means for turning the UV devices on and off is a flow sensor.

59. (new) The module as in claim 49, wherein the means for turning the UV devices on and off is a fluid sensor.

60. (new) The module as in claim 49, wherein the means for turning the UV devices on and off is a user input.

61. (new) The module as in claim 60, wherein the user input is an opening or closing of the mouthpiece, respectively.

62. (new) The module as in claim 49, wherein the egress is the mouthpiece.

63. (new) The module as in claim 49, further comprising:

a power supply to supply power to the UV devices.

64. (new) The module as in claim 63, wherein the power supply is selected from a group consisting of: batteries, fuel cells, capacitors, solar cells, and windup or crank-type dynamos.

65. (new) The module as in claim 49, wherein the module is embodied as a cap to a fluid container.

66. (new) The module as in claim 65, wherein the egress is a push-pull valve mouthpiece, and wherein the means for turning the UV devices on and off are in response to opening or closing the push-pull valve mouthpiece, respectively.

67. (new) The module as in claim 49, wherein the fluid source is a wearable bladder.

68. (new) The module as in claim 49, wherein the module is part of wearable hydration system.

69. (new) The module as in claim 49, wherein the fluid source is a bottle.

70. (new) The module as in claim 49, wherein the hydrating fluid is water.

71. (new) The module as in claim 49, wherein the flow path and UV devices are arranged to provide UV radiation of at least 25 mJ/cm^2 to all of the hydrating fluid flowing past the UV devices.

72. (new) A wearable hydrating fluid purification system, comprising:

a wearable fluid source configured to store hydrating fluid;

a mouthpiece to receive the hydrating fluid from the fluid source;

flexible tubing between the fluid source and the mouthpiece arranged to provide hydrating fluid at a drinkable rate;

a hydrating fluid purification module stationed along the tubing, the purification module having a pathway such that fluid flowing within the tubing flows into the pathway, through and out of the module to continue through the tubing at the drinkable rate, the module having embedded within walls of the pathway one or more solid state ultraviolet (UV) devices to provide UV radiation in a germicidal range, the UV devices arranged within the pathway such that hydrating fluid that flows past the UV devices at the drinkable rate is purified by the UV radiation;

means for turning on the UV devices in response to detecting hydrating fluid flow from the fluid source and turning off the UV devices in response to detecting that the hydrating fluid is no longer flowing from the fluid source; and

a portable power supply to power the UV devices.

73. (new) The system as in claim 72, further comprising:

one or more solid state UV devices embedded within walls of the wearable fluid source to provide UV radiation in a germicidal range within the fluid source.

74. (new) The system as in claim 72, wherein the power supply is selected from a group consisting of: batteries, fuel cells, capacitors, solar cells, and windup or crank-type dynamos.

75. (new) The system as in claim 72, wherein the means for turning the UV devices on and off correspondingly turn the UV devices on and off substantially immediately in response to detecting that hydrating fluid is flowing or that the hydrating fluid is no longer flowing, respectively.

76. (new) The system as in claim 72, wherein the means for turning the UV devices on and off is a flow sensor.

77. (new) The system as in claim 72, wherein the means for turning the UV devices on and off is a fluid sensor.

78. (new) The system as in claim 72, wherein the means for turning the UV devices on and off is a user input.

79. (new) The system as in claim 72, further comprising:

one or more filters to remove sediment from the hydrating fluid.

80. (new) The system as in claim 72, wherein the wearable fluid source is made of photovoltaic material, which supplies power to the UV devices as the portable power supply.

81. (new) A method for using a portable hydrating fluid purification module, the method comprising:

detecting hydrating fluid flow along tubing from a fluid source directly to a mouthpiece via the purification module;

in response, turning on one or more solid state ultraviolet (UV) devices embedded within walls of the purification module to provide UV radiation in a germicidal range to a flow path within the purification module;

irradiating the flowing hydrating fluid within the purification module, the UV devices arranged with the flow path such that hydrating fluid that flows past the UV devices at a unimpeded drinkable rate is purified by the UV radiation; and

turning off the UV devices in response to detecting that the hydrating fluid is no longer flowing along the tubing.

82. (new) The method as in claim 81, further comprising:

dividing the tubing into two separate portions, and

inserting the module into each of the two separate portions to interconnect the tubing through the module.

83. (new) The method as in claim 81, wherein turning the UV devices on and turning the UV devices off correspondingly occur substantially immediately in response to detecting that hydrating fluid is flowing or that the hydrating fluid is no longer flowing, respectively.

84. (new) The module as in claim 81, wherein detecting whether the hydrating fluid is flowing along the tubing comprises detecting whether fluid is present at a fluid sensor within the tubing.

85. (new) A portable hydrating fluid purification system, comprising:

an intermittent and variable power supply;

a variable speed hydrating fluid pump that operates while receiving variable power from the variable power supply, a variable hydrating fluid flow rate generated by the variable speed hydrating fluid pump being in direct relation to the variable power received; and

a purification module having:

an ingress and egress;

a flow path from the ingress to the egress defined by a flow path wall, the flow path arranged to allow the hydrating fluid to flow at a drinkable rate; and

one or more solid state ultraviolet (UV) devices that operate while receiving the variable power from the variable power supply, the UV devices to provide variable strength UV radiation in a germicidal range in direct relation to the variable power received, the UV devices embedded within the flow path wall and arranged with the flow path such that hydrating fluid that flows past the UV devices at the variable flow rate is purified by the correspondingly variable strength UV radiation.

86. (new) The system as in claim 85, wherein the power supply is selected from a group consisting of fuel cells, solar cells, and windup or crank-type dynamos.

87. (new) The system as in claim 85, further comprising:

a flow control valve configured to reduce the variable flow rate in response to insufficient power to irradiate the hydrating fluid

88. (new) The system as in claim 85, further comprising:

a flow control valve configured to stop the variable flow rate in response to insufficient power to irradiate the hydrating fluid

89. (new) The system as in claim 85, further comprising:

a filter to remove sediment from the hydrating fluid.

90. (new) A purifying drinking straw, comprising:

an inlet tube configured to be placed in hydrating fluid from a fluid source;

an outlet tube configured to direct hydrating fluid to a mouthpiece;

a power supply;

a purification module having:

i) a flow path from the inlet tube to the outlet tube defined by a flow path wall, the flow path arranged to allow the hydrating fluid to flow at a drinkable rate through the drinking straw; and

ii) one or more solid state ultraviolet (UV) devices to provide UV radiation in a germicidal range through received power from the power supply, the UV devices embedded within the flow path wall and arranged with the flow path such that hydrating fluid that flows past the UV devices at the drinkable rate through the drinking straw is purified by the UV radiation;

means for turning on the UV devices in response to detecting hydrating fluid flow within the inlet tube; and

means for turning off the UV devices in response to detecting that the hydrating fluid is no longer flowing to the outlet tube.

91. (new) The purifying drinking straw as in claim 90, wherein the inlet and outlet tubes are inflexible.

92. (new) The purifying drinking straw as in claim 90, wherein the outlet tube is bent.

93. (new) The purifying drinking straw as in claim 90, wherein the means for turning the UV devices on and off is a fluid sensor.

94. (new) The purifying drinking straw as in claim 90, wherein the means for turning the UV devices on and off is a user input.